DR 1079
October 1979

METEOROLOGICAL DATA REPORT

19702A GSRS
Missile Numbers 312, 313
Round Numbers, B-43, B-44
19 October 1979

by

White Sands Meteorological Team

ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

ECOM
UNITED STATES ARMY ELECTRONICS COMMAND

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1. Ballistics
2. Meteorology
3. Wind

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

Meteorological data gathered for the launching of the 19702A GSRS, Missile Numbers 312, 313, Round Numbers B-43, B-44 are presented in tabular form.

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UNCLASSIFIED 41063

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

CONTENTS

INTRODUCTION

19702A GSRS , Missile Numbers 312 and 313 , Round Numbers B-43 and B-44 , were launched from LC-33 , White Sands Missile Range (WSMR), New Mexico, at 1100 and 1100:04 MDT. 19 October 1979. The scheduled launch times were 1100 and 1100:04 MDT.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

1. Observations

a. Surface

(1) Standard surface observations to include pressure, temperature (°C), relative humidity, dew point (°C), density (gm/m^3), wind direction and speed, and cloud cover were made at the LC-33 Met Site at T-0 minutes.

(2) Anemometer data were provided from existing pole-mounted and tower-mounted anemometers at LC-33. Monitor of wind speed and direction from one anemometer was also provided in the launch control room.

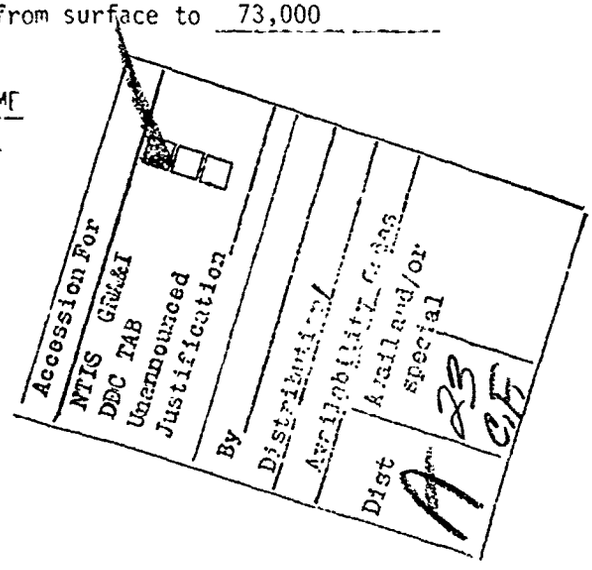
b. Upper Air

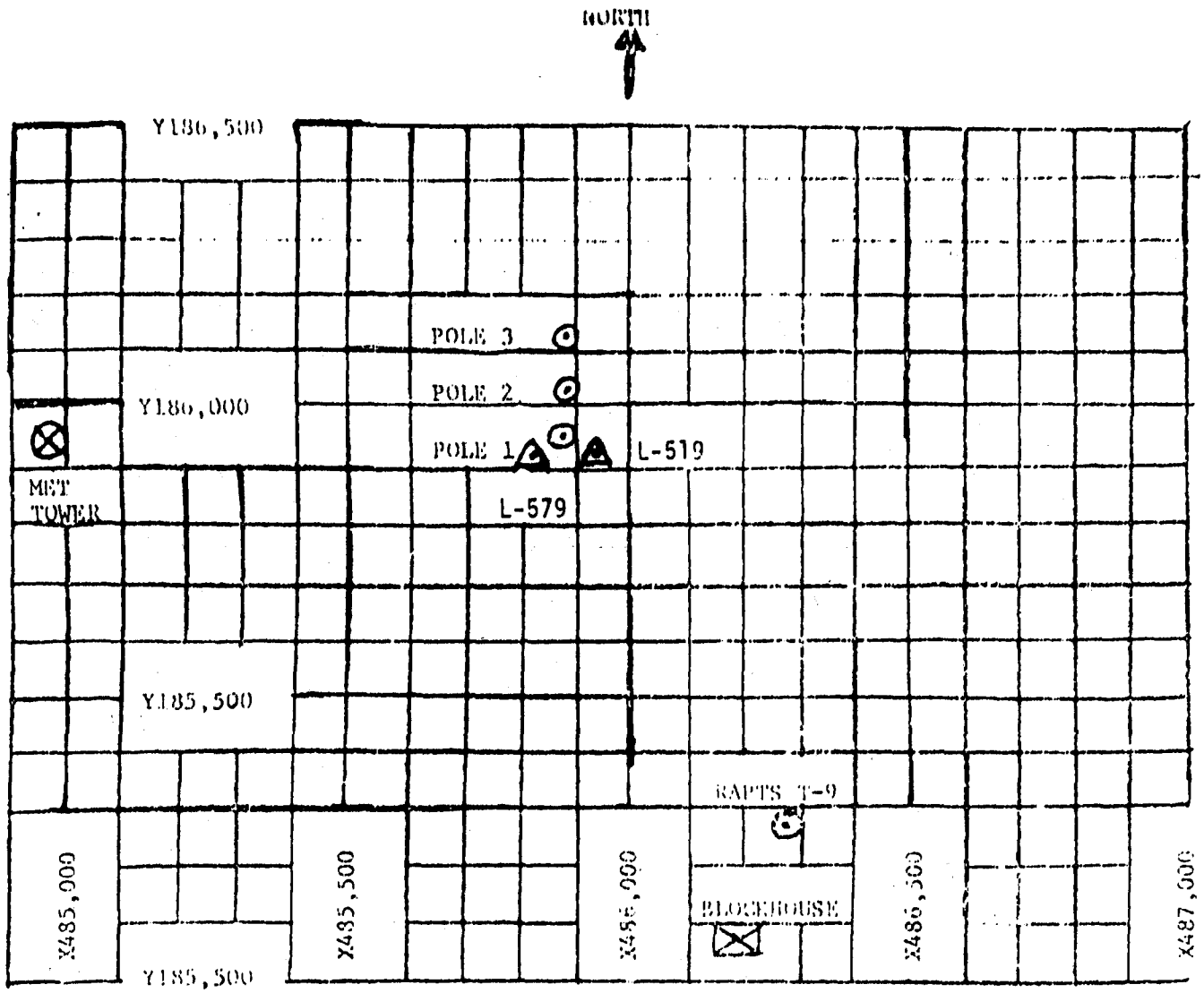
(1) Low level wind data were obtained from RAPTS T-9 pibal observation at:

SITE AND ALTITUDE	
LC-33	2Km
NICK	2Km

(2) Air structure data (rawinsonde) were collected at the following Met Sites. Data were collected from surface to 73,000 feet in 500-feet increments.

SITE AND TIME
SMR 0930 MST





1. MET TOWER - 6 Bendix Model T-20 Anemometers at 12 ft, 62 ft, 102 ft, and 702 ft with E/A recorders.

2. POLE ANEMOMETER - Bendix Model T-120 with E/A recorders.

   (a) Pole #1 - 38.7 ft

   (b) Pole #2 - 53.0 ft

   (c) Pole #3 - 81.6 ft

3. RAPTS T-9 Radar Automatic Pilot-Balloon Tracking System T-9 Radar.

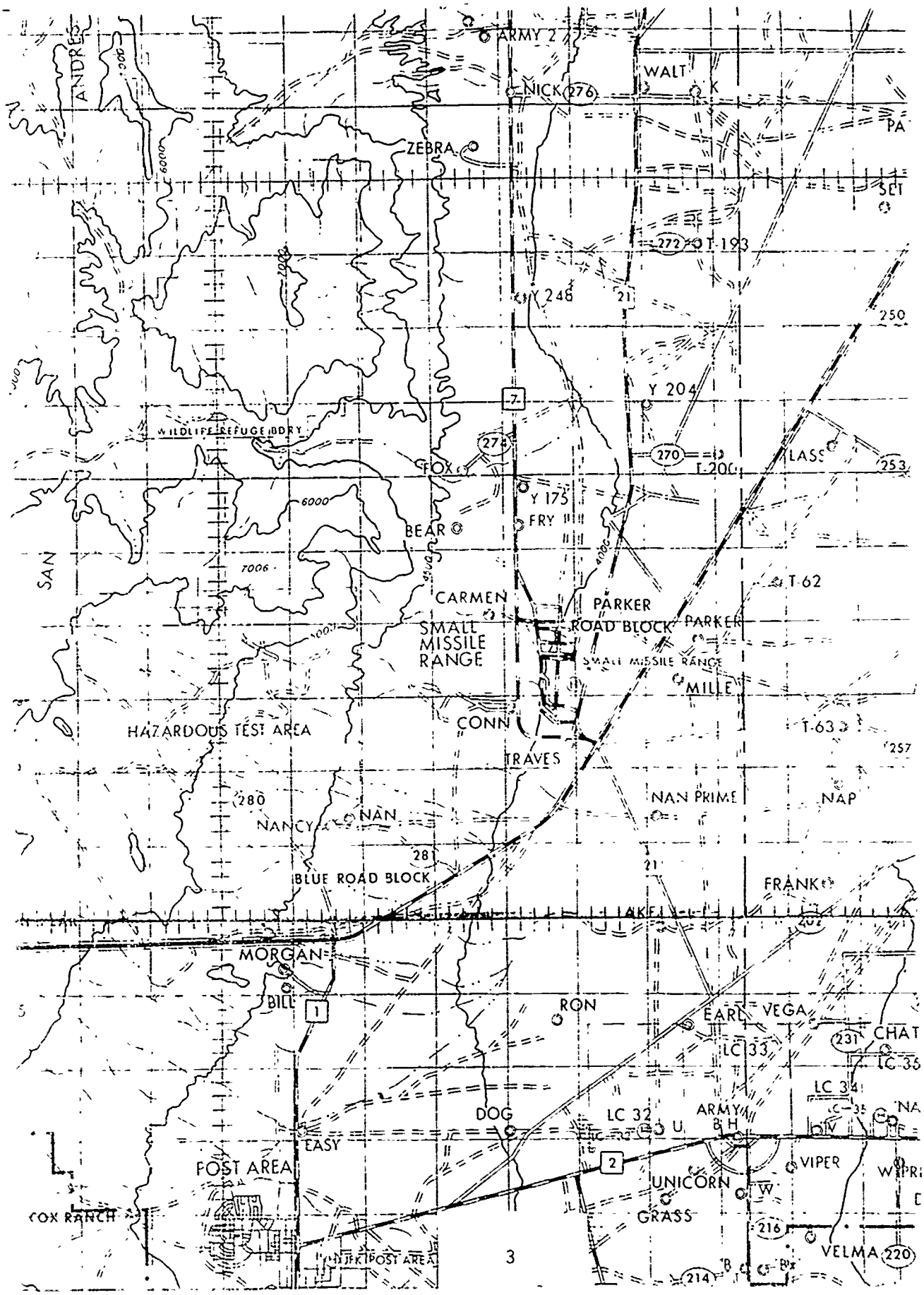

ARMY 2
NICK
WALT
ZEBRA
ANDRE
PA
SET
T-193
Y 248
250
Y 204
WILDLIFE REFUGE BDRY
FOX
T-200
LASS
253
Y 175
FRY
BEAR
SAN
CARMEN
SMALL MISSILE RANGE
PARKER
ROAD BLOCK
PARKER
SMALL MISSILE RANGE
T-62
MILE
HAZARDOUS TEST AREA
CONN
T-63
TRAVES
257
NAN PRIME
NAP
NANCY
NAN
BLUE ROAD BLOCK
FRANK
MORGAN
BILL
RON
EARL
VEGA
CHAT
LC 33
LC 34
DOG
LC 32
ARMY
EASY
POST AREA
VIPER
UNICORN
GRASS
COX RANCH
VELMA
220
216
214

TABLE 1. Surface Observations taken at 1100 MD., 19 October 1979, at LC-33, 19702A GSRS, Missile Numbers 312, 313, Round Numbers B-43, B-44.

ELEVATION	3977.30	FT/MSL
PRESSURE	876.9	MBS
TEMPERATURE	23.0	^{o}C
RELATIVE HUMIDITY	42	%
DEW POINT	9.4	^{o}C
DENSITY	1023	GM/M^3
WIND SPEED	07	KTS
WIND DIRECTION	270	DEGREES
CLOUD COVER	1	Ac
CLOUD COVER	4	Ci

LC-33 FIXED POLE ANEMOMETER MEASURED WINDS

POLE #1			POLE #2			POLE #3		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
-30	MISG	14	-30	263	14	-30	255	15
-20	MISG	14	-20	263	12	-20	250	15
-10	MISG	12	-10	276	10	-10	259	13
0.0	MISG	10	0.0	270	10	0.0	261	12
+10	MISG	09	+10	259	09	+10	264	09

POLE #1 = X485,874.29 Y185,958.90 H4018.74 38.7 ft. AGL

POLE #2 = X485,874.93 Y186,012.00 H4033.57 53.0 ft AGL

POLE #3 = X485,877.29 Y186,116.06 H4063.92 83.6 ft AGL

TABLE 2

TYPE 19702A GSRS MISSILE NOS. 312, 313 ROUND NOS. B-43, B-44

LAUNCHED FROM LC-33 DATE 19 October 1979 TIMES. 1100, 1100:04 MI

NOTE: WIND DIRECTIONS ARE REFERENCED TO TRUE NORTH.

LC-33 METEOROLOGICAL TOWER ANEMOMETER MEASURED WINDS (202 FT TOWER)

LEVEL #1 12 Feet			LEVEL #2 62 Feet		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
-30	255	09	-30	261	10
-20	264	09	-20	264	10
-10	264	09	-10	284	10
0.0	267	06	0.0	261	09
+10	273	07	+10	288	08
LEVEL #3 102 Feet			LEVEL #4 202 Feet		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
-30	261	11	-30	250	11
-20	274	12	-20	250	11
-10	274	13	-10	245	12
0.0	268	09	0.0	270	11
+10	283	11	+10	261	18

WTSM COORDINATES: X484,982.64 Y185,057.73 H3983.00 (base)

TABLE 3

TYPE 19702A GSRS MISSILE NOS. 312, 313 ROUND NOS. B-43, B-44

LAUNCHED FROM LC-33 DATE 19 October 1979 TIMES. 1100, 1100:04 MDT

NOTE: WIND DIRECTIONS ARE REFERENCED TO TRUE NORTH.

GSRS PILOT BALLOON MEASURED WIND DATA

TABLE 4

RELEASED FROM LC-33 DATE 19 October 1979 TIME 1050 MDT

TRACKER COORDINATES (WSTM) X= 486,037.24 Y= 182,350.16 Z= 3977.30

MISSILE TYPE 19702A GSRS MISSILE NOS. 312, 313 ROUND NO. B-43, B-44

MISSILE LAUNCHED FROM LC-33 DATE 19 October 1979 TIMES. 1100, 1100:04 MDT

NOTE: WIND DIRECTIONS ARE REFERENCED TO TRUE NORTH.

HEIGHT - METERS AGL

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS
SFC	270	10
90	249	13
150	275	15
210	274	15
270	262	12
330	270	12
390	270	12
500	282	10
650	278	05
800	250	04
950	234	07
1150	231	15
1350	238	22
1550	252	27
2750	260	27
2000	262	29

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS

GSRS PILOT BALLOON MEASURED WIND DATA

TABLE 5

RELEASED FROM LC-33 DATE 19 October 1979 TIME 1100 MDT

TRACKER COORDINATES (WSTM) X= 486,037.24 Y= 182,350.16 H= 3977.30

MISSILE TYPE 19702A GSRS MISSILE NOS. 312, 313 ROUND NOS. B-43, B-44

MISSILE LAUNCHED FROM LC-33 DATE 19 October 1979 TIMES. 1100, 1100:04 MDT

NOTE: WIND DIRECTIONS ARE REFERENCED TO TRUE NORTH.

HEIGHT - METERS AGL

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS
SFC	270	09
90	MISG	MISG
150	283	15
210	289	13
270	292	11
330	291	09
390	289	14
500	260	09
650	270	07
800	250	09
950	261	06
1150	230	06
1350	215	12
1550	245	24
1750	258	30
2000	263	31

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS

GSRS PILOT BALLOON MEASURED WIND DATA

TABLE 6

RELEASED FROM NICK SITE DATE 19 October 1979 TIME 1106 MDT

TRACKER COORDINATES (WS1M) X= 470,734.56 Y= 255,775.64 H= 4126.57

MISSILE TYPE 19702A GSRS MISSILE NOS. 312, 313 ROUND NOS. B-43, B-44

MISSILE LAUNCHED FROM LC-33 DATE 19 October 1979 TIMES. 1100, 1100:04 MDT

NOTE: WIND DIRECTIONS ARE REFERENCED TO TRUE NORTH.

HEIGHT - METERS AGL

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS
SFC	260	21
90	260	18
150	259	15
210	255	10
270	270	11
330	276	13
390	268	16
500	287	18
650	309	16
800	316	18
950	317	18
1150	334	20
1350	318	17
1550	339	21
1750	347	22
2000	345	20

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS

STATION ALTITUDE 3997.30 FEET MSL
19 OCT. 79 0930 HRS MST
ASCENSION NO. 357

SIGNIFICANT LEVEL DATA
29200605S7
S M R

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

TABLE 7

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT
877.0	3997.3	23.0	7.5	37.0
870.8	4199.3	20.2	5.1	37.0
850.9	4861.6	18.0	5.6	44.0
778.3	7329.5	11.0	2.6	56.0
758.8	8025.2	11.0	-5.5	31.0
749.8	8351.5	10.1	-7.6	28.0
731.3	9035.1	11.5	-13.4	16.0
700.0	10229.8	9.2	-15.3	16.0
595.6	14551.0	1.1	-23.4	14.0
571.8	15632.7	-1.6	-9.9	53.0
546.3	16822.7	-3.8	-14.5	43.0
500.0	19096.6	-10.1	-13.8	74.0
476.7	20304.2	-11.6	-15.0	76.0
464.8	20942.5	-11.2	-16.6	54.0
450.3	21296.3	-11.2	-20.7	45.0
423.8	23202.6	-14.5	-27.8	31.0
400.0	24697.2	-16.9	-32.6	24.0
325.6	29652.4	-30.5	-41.5	33.0
300.0	31542.4	-35.7	-45.3	36.0
283.3	32843.1	-39.7	-49.0	36.0
250.0	35617.0	-46.7		
229.8	37438.2	-51.5		
200.0	40369.0	-57.5		
158.8	45068.9	-66.7		
150.0	46202.5	-67.8		
143.6	47065.3	-68.7		
137.6	47914.3	-65.7		
123.8	49252.3	-67.7		
119.8	50669.7	-67.8		
113.3	51764.8	-64.7		
100.0	54276.0	-68.7		
74.8	60034.5	-67.3		
70.0	61372.8	-61.7		
65.8	62645.4	-59.3		
54.3	66587.1	-62.8		
51.3	67755.2	-58.7		
50.0	68267.6	-58.9		
45.8	70107.0	-58.9		
39.8	73043.2	-55.4		

STATION ALTITUDE 3997.30 FEET MSL
19 OCT. 79 0930 HRS MST
ASCENSION NO. 357

UPPER AIR DATA
29200360357
S M R

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

TABLE 8

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
3997.3	877.0	23.0	7.5	37.0	1027.0	671.9	220.0	15.0	1.000274
4000.0	876.9	23.0	7.5	37.0	1027.0	671.9	220.0	15.0	1.000274
4500.0	861.6	19.2	5.3	40.1	1022.5	667.5	228.5	15.7	1.000268
5000.0	846.4	17.7	5.5	44.6	1009.8	665.7	235.6	16.8	1.000265
5500.0	831.3	16.2	4.9	47.0	996.8	664.0	242.0	18.1	1.000261
6000.0	816.5	14.6	4.3	49.5	983.9	662.4	246.1	19.9	1.000257
6500.0	801.9	13.4	3.7	51.9	971.3	660.7	247.1	22.4	1.000253
7000.0	787.6	11.9	3.0	54.4	958.9	659.0	247.9	24.8	1.000249
7500.0	773.5	11.0	1.0	49.9	945.2	657.8	251.4	27.7	1.000241
8000.0	759.5	11.0	-5.1	31.9	929.2	657.4	255.0	30.8	1.000227
8500.0	745.7	10.4	-8.5	25.4	914.7	656.5	259.0	32.2	1.000219
9000.0	732.2	11.4	-13.0	16.6	895.3	657.6	262.7	33.6	1.000210
9500.0	719.0	10.6	-14.1	16.0	881.7	656.6	264.7	34.2	1.000206
10000.0	705.9	9.6	-14.9	16.0	868.7	655.5	266.7	34.7	1.000203
10500.0	693.0	8.7	-15.6	15.9	855.7	654.5	267.1	34.0	1.000199
11000.0	680.2	7.8	-16.7	15.6	842.7	653.2	267.5	33.2	1.000196
11500.0	667.6	6.8	-17.6	15.4	830.0	652.1	268.2	32.6	1.000192
12000.0	655.3	5.9	-18.6	15.2	817.4	651.0	269.2	32.1	1.000189
12500.0	643.2	4.9	-19.5	14.9	805.1	649.9	271.6	31.7	1.000186
13000.0	631.3	4.0	-20.5	14.7	792.9	648.8	274.9	31.3	1.000183
13500.0	619.6	3.1	-21.4	14.5	780.9	647.7	276.5	31.7	1.000179
14000.0	608.2	2.1	-22.3	14.3	769.1	646.6	277.6	32.2	1.000176
14500.0	596.9	1.2	-23.3	14.0	757.5	645.5	278.5	32.5	1.000173
15000.0	585.7	-.0	-15.4	30.2	746.2	644.2	278.6	32.6	1.000176
15500.0	574.7	-1.3	-10.8	48.2	735.1	642.9	278.9	32.4	1.000178
16000.0	563.8	-2.3	-11.3	49.9	723.9	641.7	278.9	31.1	1.000175
16500.0	553.1	-3.2	-13.2	45.7	712.7	640.6	278.6	29.7	1.000170
17000.0	542.5	-4.3	-14.3	45.4	702.0	639.2	278.6	26.2	1.000167
17500.0	532.1	-5.7	-13.9	52.2	692.0	637.6	278.2	26.6	1.000165
18000.0	521.8	-7.1	-13.7	59.0	682.1	636.0	277.5	26.6	1.000163
18500.0	511.8	-8.4	-13.7	65.9	672.4	634.3	276.6	27.2	1.000161
19000.0	501.9	-9.8	-13.8	72.7	662.9	632.7	275.0	27.6	1.000159
19500.0	492.1	-10.6	-14.2	74.7	653.9	631.7	272.9	27.7	1.000156
20000.0	482.5	-11.2	-14.7	75.5	644.7	631.0	272.6	29.0	1.000154
20500.0	473.0	-11.5	-16.0	69.3	636.8	630.6	275.3	32.0	1.000150
21000.0	463.7	-11.2	-19.0	52.5	628.0	630.9	282.7	34.9	1.000145
21500.0	454.6	-11.5	-21.4	43.6	619.8	630.4	289.3	37.5	1.000141
22000.0	445.7	-12.4	-23.1	40.0	611.9	629.4	294.6	38.4	1.000138
22500.0	436.9	-13.2	-24.9	36.4	603.1	628.3	294.1	40.5	1.000135
23000.0	428.3	-14.1	-26.8	32.9	595.5	627.3	295.1	39.3	1.000132

STATION ALTITUDE 3997.30 FEET MSL
19 OCT. 79 0900 HRS MST
ASCENSION NO. 367

UPPER AIR DATA
29200.0357
S M R

GEODETIC COORDINATES
32.40034 LAT DEG
106.42307 LON DEG

TABLE 8 (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
23500.0	419.8	-14.9	-28.6	29.8	565.9	620.2	298.6	35.7	1.000129
24000.0	411.4	-15.7	-30.2	27.4	556.5	625.2	305.0	31.7	1.000127
24500.0	403.2	-16.6	-31.9	25.0	547.2	624.2	311.4	28.5	1.000124
25000.0	395.0	-17.7	-33.1	24.6	536.6	622.7	316.7	26.1	1.000122
25500.0	386.9	-19.1	-33.9	25.5	530.3	621.0	322.9	24.0	1.000120
26000.0	378.9	-20.5	-34.8	26.4	522.5	619.3	329.3	22.6	1.000118
26500.0	371.1	-21.9	-35.6	27.3	514.3	617.6	328.0	21.3	1.000116
27000.0	363.5	-23.2	-36.5	28.2	506.6	615.9	330.0	20.5	1.000114
27500.0	356.0	-24.6	-37.4	29.1	498.9	614.2	330.9	20.2	1.000113
28000.0	348.7	-26.0	-38.3	30.0	491.4	612.5	331.6	20.0	1.000111
28500.0	341.5	-27.4	-39.3	30.9	484.0	610.8	332.9	20.3	1.000109
29000.0	334.5	-28.8	-40.2	31.8	476.7	609.1	334.0	20.6	1.000107
29500.0	327.6	-30.1	-41.2	32.8	469.5	607.4	334.5	21.3	1.000106
30000.0	320.7	-31.5	-42.2	33.6	462.2	605.7	334.5	22.3	1.000104
30500.0	313.8	-32.9	-43.2	34.4	454.9	603.9	334.7	23.2	1.000102
31000.0	307.1	-34.2	-44.2	35.1	447.7	602.2	335.9	23.5	1.000100
31500.0	300.5	-35.6	-45.3	35.9	440.7	600.5	337.1	24.0	1.000099
32000.0	294.0	-37.1	-46.6	36.0	433.9	598.8	339.0	24.4	1.000097
32500.0	287.6	-38.6	-48.0	36.0	427.2	598.0	341.4	25.1	1.000096
33000.0	281.3	-40.1	-49.3	34.0**	420.5	594.6	343.3	26.7	1.000094
33500.0	275.0	-41.4	-52.8	27.5**	413.3	593.1	349.4	27.9	1.000092
34000.0	268.9	-42.6	-56.1	21.0**	406.3	591.5	354.1	28.6	1.000091
34500.0	262.9	-43.9	-60.0	14.5**	399.5	589.9	354.6	29.4	1.000089
35000.0	257.1	-45.1	-65.5	8.0**	392.7	588.3	354.1	30.1	1.000088
35500.0	251.3	-46.4	-77.6	1.5**	386.1	586.6	354.4	31.1	1.000086
36000.0	245.6	-47.7			379.5	584.9	354.4	32.2	1.000085
36500.0	240.0	-49.0			373.0	583.2	353.6	33.3	1.000083
37000.0	234.5	-50.3			366.7	581.5	350.7	35.7	1.000082
37500.0	229.1	-51.6			360.3	579.8	347.2	38.1	1.000080
38000.0	223.8	-52.7			353.5	578.0	344.3	40.2	1.000079
38500.0	218.5	-53.7			346.9	577.2	344.2	41.2	1.000077
39000.0	213.4	-54.7			340.3	575.8	344.9	41.9	1.000076
39500.0	208.4	-55.7			333.9	574.5	345.5	42.4	1.000074
40000.0	203.5	-56.7			327.6	573.1	347.0	43.2	1.000073
40500.0	198.7	-57.8			321.4	571.8	347.0	44.2	1.000072
41000.0	193.9	-56.7			315.0	570.5	350.0	45.2	1.000070
41500.0	189.2	-59.7			308.8	569.2	352.9	45.8	1.000069
42000.0	184.6	-60.7			302.7	567.8	353.3	43.0	1.000067
42500.0	180.1	-61.7			296.7	566.5	353.4	40.1	1.000066
43000.0	175.3	-62.7			290.9	565.2	352.1	36.9	1.000065

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3997.30 FEET MSL
19 OCT. 72 0930 HRS MST
ASCENSION NO. 357

UPPER AIR DATA
2920000357
S M R

GEODETIC COORDINATES
32.46034 LAT DEG
106.42307 LON DEG

TABLE 8 (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
43500.0	171.5	-63.6			285.2	563.9	350.2	33.9	1.000064
44000.0	167.4	-64.6			279.6	562.6	347.0	31.7	1.000062
44500.0	163.3	-65.6			274.1	561.3	338.6	31.2	1.000061
45000.0	159.3	-66.6			268.7	559.9	329.6	33.9	1.000060
45500.0	155.4	-67.1			262.7	559.2	317.2	40.6	1.000059
46000.0	151.5	-67.6			256.8	558.5	311.9	48.1	1.000057
46500.0	147.8	-68.1			251.0	557.8	309.6	49.3	1.000056
47000.0	144.1	-68.6			245.4	557.1	307.7	48.9	1.000055
47500.0	140.5	-67.2			237.6	559.1	303.6	45.7	1.000053
48000.0	137.0	-65.8			230.2	560.9	298.4	42.4	1.000051
48500.0	133.6	-66.6			225.3	559.9	294.4	43.1	1.000050
49000.0	130.3	-67.3			220.6	558.9	290.9	44.6	1.000049
49500.0	127.1	-67.7			215.5	558.4	290.3	44.9	1.000048
50000.0	123.9	-67.8			210.2	558.3	290.5	44.9	1.000047
50500.0	120.8	-67.8			205.0	558.3	288.2	40.5	1.000046
51000.0	117.8	-68.9			199.0	557.5	283.8	34.7	1.000044
51500.0	114.9	-65.5			192.8	561.4	277.2	29.5	1.000043
52000.0	112.1	-65.0			187.6	562.0	267.6	25.0	1.000042
52500.0	109.3	-65.8			183.7	560.9	262.4	23.9	1.000041
53000.0	106.6	-66.7			179.6	559.8	263.9	25.8	1.000040
53500.0	104.0	-67.5			176.1	558.7	265.9	27.7	1.000039
54000.0	101.4	-68.3			172.4	557.6	269.6	29.7	1.000038
54500.0	98.9	-68.6			168.4	557.1	270.9	31.5	1.000038
55000.0	96.4	-68.5			164.1	557.3	269.0	31.8	1.000037
55500.0	94.0	-68.4			160.0	557.4	267.3	32.2	1.000036
56000.0	91.7	-68.3			155.9	557.6	266.0	32.8	1.000035
56500.0	89.4	-68.2			151.9	557.8	264.9	33.0	1.000034
57000.0	87.2	-68.0			148.0	557.9	264.5	31.2	1.000033
57500.0	85.0	-67.9			144.3	558.1	263.7	29.9	1.000032
58000.0	82.9	-67.8			140.6	558.3	261.4	30.1	1.000031
58500.0	80.8	-67.7			137.0	558.4	259.9	31.2	1.000031
59000.0	78.8	-67.6			133.5	558.6	260.5	35.2	1.000030
59500.0	76.8	-67.4			130.1	558.8	262.7	38.3	1.000029
60000.0	74.9	-67.3			126.8	558.9	268.5	39.7	1.000028
60500.0	73.1	-65.4			122.5	561.6	273.0	38.8	1.000027
61000.0	71.3	-63.3			118.3	564.4	276.5	33.1	1.000026
61500.0	69.6	-61.5			114.5	566.8	277.6	27.1	1.000025
62000.0	67.9	-60.5			111.2	568.1	271.1	20.5	1.000025
62500.0	66.3	-59.6			108.1	569.3	258.0	14.9	1.000024
63000.0	64.7	-59.6			105.5	569.3	234.1	12.4	1.000023

STATION ALTITUDE 3997.30 FEET MSL
19 OCT. 79 0930 HRS MST
ASCENSION NO. 357

UPPER AIR DATA
2920600357
S M R

GEODETIC COORDINATES
32.46034 LAT DEG
106.42307 LON DEG

TABLE 8 (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(T)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
63600.0	63.1	-60.1			103.2	568.7	204.2	12.7	1.000023
64000.0	61.6	-60.5			100.9	568.1	207.7	14.1	1.000022
64500.0	60.1	-60.9			98.7	567.5	207.5	15.4	1.000022
65000.0	58.7	-61.4			96.5	566.9	221.5	15.9	1.000021
65500.0	57.3	-61.8			94.4	566.3	235.1	17.4	1.000021
66000.0	55.9	-62.3			92.3	565.7	240.1	17.7	1.000021
66500.0	54.5	-62.7			90.3	565.1	243.0	17.4	1.000020
67000.0	53.2	-61.4			87.5	567.0	244.5	17.9	1.000019
67500.0	51.9	-59.6			84.7	569.3	245.0	18.8	1.000019
68000.0	50.7	-58.8			82.4	570.4	248.0	19.1	1.000018
68500.0	49.5	-58.9			80.5	570.2	248.3	18.2	1.000018
69000.0	48.3	-58.9			78.6	570.2	251.3	17.5	1.000017
69500.0	47.2	-58.9			76.7	570.2	258.6	17.3	1.000017
70000.0	46.0	-58.9			74.9	570.2	260.3	17.4	1.000017
70500.0	44.9	-58.4			72.9	570.9	268.6	17.1	1.000016
71000.0	43.9	-57.8			71.0	571.7	270.4	16.7	1.000016
71500.0	42.8	-57.2			69.1	572.4			1.000015
72000.0	41.8	-56.6			67.3	573.2			1.000015
72500.0	40.8	-56.0			65.5	574.0			1.000015
73000.0	39.9	-55.5			63.8	574.8			1.000014

START H ALTITUDE 3997.30 FEET MSL
29 OCT. 79 0930 HRS MST
ASCENSION NO. 357

MANDATORY LEVELS
29200.0357
5 M R

GEODETIC COORDINATES
32.46034 LAT DEG
106.42307 LON DEG

TABLE 9

PRESSURE	GEOPOTENTIAL	TEMPERATURE		REL.HUM.	WIND DATA	
		AIR	DEWPOINT		DIRECTION	SPEED
MILLIBARS	FEET	DEGREES CENTIGRADE		PERCENT	DEGREES(TN)	KNOTS
850.0	4876.	18.0	5.0	44.	233.9	16.5
800.0	6567.	13.2	3.0	52.	247.2	22.7
750.0	8337.	10.1	-7.5	20.	257.8	31.8
700.0	10220.	9.2	-15.3	16.	266.9	34.4
650.0	12219.	5.5	-19.0	15.	270.2	31.9
600.0	14348.	1.5	-23.0	14.	270.2	32.5
550.0	16620.	-3.5	-13.0	44.	276.8	29.3
500.0	19070.	-10.1	-13.0	74.	274.6	27.6
450.0	21726.	-12.0	-22.3	42.	292.1	37.9
400.0	24650.	-10.9	-32.0	24.	313.3	27.6
350.0	27870.	-25.8	-38.2	30.	331.6	20.1
300.0	31479.	-35.7	-45.3	30.	337.2	24.1
250.0	35539.	-46.7			354.5	31.3
200.0	40271.	-57.5			347.0	43.9
175.0	43004.	-62.8			351.9	36.2
150.0	46070.	-67.8			310.8	49.5
125.0	49663.	-67.7			290.5	44.9
100.0	54159.	-68.7			270.3	30.8
80.0	58504.	-67.6			260.1	32.6
70.0	61163.	-61.7			279.2	29.3
60.0	64316.	-61.0			207.3	15.4
50.0	68031.	-58.9			247.1	16.6
40.0	72646.	-55.5				

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.